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The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.



REC-11 REMOTE RECEIVER UNIT

OWNER'S MANUAL

This product is designed for professional installation only!

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REC-11 Operating Instructions Introduction

The REC-11 is a fully-featured Remote Keyless Entry System with Starter Disable designed by Omega Research and Development, a leader in vehicle security and convenience systems since 1970. Please note that this advanced personal convenience system has Programmable Features which can be configured by the installer. These instructions describe operations of the system with the factory default settings of the Programmable Features. Please see your installing dealer for more details on Programmable Features.

To learn how to operate your system, this Owner's Operation Manual will begin with Transmitter Functions, then explain the system's other operations as enhanced by the factory-set Programmable Features. As you become more familiar with the basic operations that this model performs, this Manual will further discuss the User Programmable Features, and then explain how change them to configure the system to suit your personal needs.

Automatic Transmitter Verification[™]

You received two remote control transmitters to operate your Remote Keyless Entry System. The system LED will flash two times every time the ignition key is turned "on". This alert will last 90 seconds for the first 48 hours after a new installation. The alert will shorten to 10 seconds after the first 48 hours. If a new remote is coded into the system the alert will again be 90 seconds for 48 hours. This Patented feature alerts you if someone has covertly added an unauthorized transmitter to your system, and is found only in Omega Research and Development products.

17) One or Two Button Operation: Default Two

This feature allows the unit to be locked and unlocked from two separate buttons or have the unit "toggle" the lock and unlock operations from one button.

List of Programmable Features:

1) Secret Override Code: Default 1&0 Programming Switch Press

2) Doors Automatically Lock 90 Seconds After The Ignition Is Turned "Off" : Default OFF

3) Doors Automatically Relock 90 Seconds After Remotely Unlocking : Default OFF

4) Doors Lock With Ignition "On" : Default ON

- 5) Ignition "Off" Unlock #1 : Default **ON**
- 6) Ignition "Off" Unlock #2 : Default ON
- 7) Operating Trunk Release Also Unlocks Doors: Default ON
- 8) Doorlock Pulse Time .8/3 Seconds :Default .8 Second
- 9) Double Unlock Pulse : Default OFF
- 10) Audible Confirmation Of Received Transmitter Signal : Default ON
- 11) The Starter Disable Will Automatically Engage 90 Seconds After The Ignition Switch Is Turned "Off" : Default **OFF**
- 12) The Starter Disable Will Automatically Engage 90 Seconds After The Transmitter Is Used To Unlock The Doors : Default **OFF**
- 13) Ignition Activated Anti-Carjacking : Default OFF
- 14) Transmitter Activated Anti-Carjacking : Default OFF
- 15) 30 Second Parking Lights Upon Unlock : Default **ON**
- 16) "Panic" / 3rd Channel From Button III : Default 3rd Channel

14) Transmitter Activated Anti-Carjacking: Default OFF.

This Feature adds Anti-Carjacking protection, and the ignition must be "on" for the Anti-Carjacking to operate. Press and hold the transmitter's II button for 3 seconds. The piezo will start beeping 53 seconds later, and for the next seven seconds pressing the Valet Switch once will cancel the Anti-Carjacking Feature. At 60 seconds the piezo starts making a siren sound, and the parking and dome lights will also flash. At 90 seconds the starter interrupt output will activate. Once the siren sound occurs and lights flash, Anti-Carjacking cannot be canceled unless the ignition is turned "off", then back "on"; the Valet Switch must be pressed once within 10 seconds of turning the ignition back "on". This is the only way to cancel or turn off the Anti-Carjacking Feature - once activated, the transmitter cannot be used to cancel or turn off the Feature.

15) 30 Second Parking Lights Upon Unlock: Default 30 Seconds.

This feature gives the option of having the parking light output flash twice then illuminate for 30 seconds upon Unlock or have the parking lights only flash twice upon Unlock. To change this feature press the Lock button for the 2 flashes only setting.

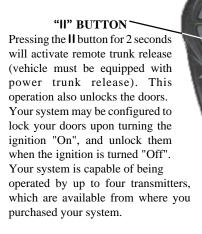
16) "Panic" or 3rd Channel From Button III: Default 3rd Channel.

This feature allows button III to operate either "Panic" or 3rd channel. In the default setting holding button III depressed for 4 seconds will activate the 3rd channel output. Panic can be activated from either the lock or the unlock button. Press and hold either button for 5 seconds to activate panic. With this feature off press and hold button III for 5 seconds to activate "panic". Press the lock and unlock buttons together for 5 seconds to activate the 3rd channel output.

Transmitter Functions

"LOCK" BUTTON

Pressing the LOCK button will lock all of the doors and engage the optional starter interrupt; when held operates "Panic".



GREEN LIGHT

Illuminates whenever any transmitter button is pressed.

"UNLOCK" BUTTON

Pressing the UNLOCK button will unlock all of the doors and disengage the starter interrupt circuit. Or, if the system is thusly configured, pressing the UNLOCK button <u>once</u> unlocks only the driver's door and pressing a <u>second</u> time will unlock all of the doors. Press and hold to activate "Panic".

"III" BUTTON

Pressing the **III** button for two seconds can be used to activate the 3rd Channel Output. This Button may also be configured to activate the "Panic" feature.



Transmitter Features

Concealed Transmitter Codes: Each system includes two transmitters, and up to two additional transmitters can be stored in the unit's memory for your convenience. Each transmitter has its own unique code. Thus, no other transmitter is coded the same as yours. In fact, no one, including the factory, can program another transmitter exactly like yours because the code is built inside the transmitter's microprocessor and cannot be seen or copied.

Transmitter Code JumpingTM: Each time you press a transmitter button its signal will advance to the next digital code in sequence. Each time the keyless entry module receives the correct digitally encoded signal from your transmitter, the receiver will then advance to the next digital code in sequence to match the transmitter. Therefore, you can never transmit the same code twice, thereby preventing a code grabbing device from operating your system.

Transmitter Battery Saver Feature: Many times transmitter batteries are prematurely exhausted because the transmitter buttons are inadvertently pressed by objects while in a pocket or purse. The transmitter will turn itself "off" after a short period of continuous transmission, and thus prevent drained transmitter batteries.

L E D Status Light

The REC-11 includes a Red LED Status Light to inform you of the system's operational condition. Your system features a Starter Disable circuit, the status of which is also reflected by the Red LED Status Light. These are the conditions of the LED Status Light:

11) The Starter Disable Will Automatically Engage 90 Seconds After The Ignition Switch Is Turned "Off": Default OFF.

When this Feature is activated, the Starter Disable circuit will automatically engage 90 seconds after the ignition switch is turned "off". Turning "on" the ignition switch during this 90 second period will reset timer period. Once the Starter Disable circuit engages, the transmitter's use to unlock the doors or putting the system into Valet Mode are required to disengage it.

12) The Starter Disable Will Automatically Engage 90 Seconds After The Transmitter Is Used To Unlock The Doors: Default OFF (press LOCK).

When this Feature is activated, the Starter Disable circuit will automatically reengage 90 seconds after remotely unlocking the doors. Turning "on" the ignition switch during this 90 second period will override this Feature, preventing the automatic engagement.

13) Ignition Activated Anti-Carjacking: Default OFF.

This Feature adds automatic Anti-Carjacking protection; Automatic Anti-Carjacking protection is activated every time the ignition switch is turned "on". In this form of Anti-Carjacking, the Valet Switch may be pressed within 60 seconds of turning the ignition "on", including the final 7 seconds when the piezo is beeping to remind you of impending engagement of the feature. At 60 seconds the piezo starts making a siren sound. At 90 seconds the starter interrupt output will activate. Once the siren sound occurs, Anti-Carjacking cannot be canceled unless the ignition is turned "off", then back "on"; the Valet Switch must be pressed once within 10 seconds of turning the ignition back "on". This is the only way to cancel or turn off the Anti-Carjacking Feature - once activated, the transmitter cannot be used to cancel or turn off the Feature. transmitter has been used to unlock them. Turning the ignition "on" during the 90 second period will cancel the automatic relocking.

- **Doors Lock With Ignition "On":** Default ON.
- Ignition "Off" Unlock #1: Default ON. 5)
- 6) Ignition "Off" Unlock #2: Default ON.

These three Features control the doorlocks in relation to the ignition being turned on or off.

- Operating Trunk Release Also Unlocks Doors: Default ON. 7) When the transmitter's II button is pressed for 3 seconds to activate the Trunk Release output, this Feature will unlock the doors. Both doorlock unlock outputs will operate.
- 8) Doorlock Pulse Time .8/3 Seconds: Default .8 Second (press LOCK). Some vehicle's power doorlocking systems (example: Mercedes Benz pneumatic systems) require a longer output pulse to operate properly. This Feature allows the installer the flexibility to accommodate such systems.
- **Double Unlock Pulse:** Default OFF. 9)

This is another Feature provided for the installer's benefit. Some newer vehicles require a double pulse to remotely unlock the doors and/or to disarm a factory-equipped security system.

10) Confirmation Chirps: Default ON.

This Feature causes the system to acknowledge the reception of a transmitter command. Pressing LOCK produces one beep; pressing UNLOCK produces two beeps. Turning this Feature OFF silences the confirmation beeps.

LED Off I	gnition switch is "On" OR the system s "at rest", indicating that no automatic features will occur.
LED On Solid RedS	system is in "Valet Mode".
LED Flashing Rapidly	An automatic function countdown is in progress.
LED Flashing SlowlyS	starter Disable is engaged. This will occur whenever the transmitter is used to lock the doors. The Starter Disable may also be programmed to operate automatically.
	Number of transmitters stored in the system. These four indicators are part of the Auto- natic Transmitter Verification [™] feature.

Audible Confirmation

The REC-11 includes a piezo buzzer for audible confirmation when a transmitter command is received: one beep acknowledges a LOCK command and two beeps acknowledge an UNLOCK command. If the system is in Valet Mode, the piezo buzzer will also beep once when the ignition is

turned "off" as a reminder. Single beeps will also accompany the engagement of automatic locking and starter interrupt circuit engagement. This confirmation can be from the included piezo or the vehicles' horn.

Visual Confirmation

The REC-11 has built-in relays which illuminate the vehicle's parking and dome lights to provide a visual confirmation of the system's operations. The parking and dome lights will:

Flash Once Doors have locked by using the transmitter.

Flash Twice Then Stay On 30 Seconds Doors have unlocked by using the transmitter.

The parking and dome lights staying on for 30 seconds after the transmitter's use has unlocked the doors illuminates your way to the vehicle when dark and also allows inspection of the interior.

Automatic Transmitter Verification[™]

You received two remote control transmitters to operate your Remote Keyless Entry System. The system LED will flash two times every time the ignition key is turned "on". This alert will last 90 seconds for the first 48 hours after a new installation. The alert will shorten to 10 seconds after the first 48 hours. If a new remote is coded into the system the alert will again be 90 seconds for 48 hours. This Patented feature alerts you if someone has covertly added an unauthorized transmitter to your system, and is found only in Omega Research and Development products. turn features off. The module will acknowledge turning the Feature "on" by beeping once, or "off" by beeping twice. If 10 seconds of no programming activity expires (not pressing the LOCK or UNLOCK buttons or selecting another Feature) the system will exit the Features Programming Mode, which is indicated by sounding the piezo buzzer for a short period.

The 17 Programmable Features, their factory-set default settings, and the transmitter button pressed during programming to obtain the default setting are as follows:

1) Secret Override Code: Default 1 & 0 Programming Switch Press.

As explained in the "Valet Switch" section of the operations guide, only one press of the Valet Switch is required to Override the system. However, if a more secure starter interrupt circuit Override is desired, the number of Valet Switch presses may be custom-programmed to achieve the Override Mode. To change the system from the default setting, follow Steps 1, 2, and 3 on the previous Page. At Step 4, press and release the transmitter's LOCK button a number of times equal to the desired new code to enter the Override Mode. The system will respond to each transmitter button press with a piezo beep. After pressing the transmitter button the desired number of times, wait for the system to beep the same number. A second stage may now be entered, if desired, by pressing the transmitter's UNLOCK button in a similar fashion.

- 2) Doors Automatically Lock 90 Seconds After The Ignition Is Turned "Off": Default OFF. Activating this Feature will cause the doors to automatically lock 90 seconds after the ignition switch is turned "off".
- **3) Doors Automatically Relock 90 Seconds After Remotely Unlocking:** Default OFF. Activating this Feature will cause the doors to automatically relock 90 seconds after the

Programming Features

The REC-11 Remote Keyless Entry and Security System has features that can be accessed through the Features Programming Mode through using the Valet Switch and the transmitter. The Features Programming Mode is accessed by turning "off" the ignition switch and properly pressing the Valet Switch. Once in the Features Programming Mode, the Valet Switch is further used to specify which of the 17 Features is to be changed, then the transmitter is used to program the selected Feature.

To access the Features Programming Mode, follow this procedure:

- Step 1 Within 5 seconds of turning the ignition "off", momentarily press the Valet Switch 5 times. The module will respond by sounding the built-in piezo buzzer for a short period.
- **Step 2** Press the Valet Switch once again to enter Transmitter Programming Mode. The system will respond by briefly sounding the buzzer followed by two beeps. The system is now in Features Programming Mode
- Step 3 You now have 10 seconds access the desired Feature. This done by pressing the Valet Switch the number of times that are equal to Feature number listed. For example, to change the doorlock output pulse from .8 to 3 seconds, press the Programming Switch 6 times. The module will acknowledge the entry by beeping a number of times equal to the number of Valet Switch presses.

The Valet Switch

The Valet Switch is used to place the system into Valet Mode, which is used to stop or interrupt any optional automatic functions, such as Starter Disable, which may be programmed to operate. The Valet Switch, in conjunction with your ignition key, also allows you to override the system in the event of a lost or damaged transmitter, leaving the vehicle for servicing, washing, or valet parking.

Easy ValetTM Mode: This feature allows you to activate the Valet Mode at any time by pressing the Valet Switch button for 2 seconds, <u>unless the Starter Disable is engaged</u> (this is indicated by a slow flashing Red LED Status Light). Please note that once the Starter Disable is engaged, the ignition switch must be turned "on" to enter the Valet Mode. When utilizing the Easy ValetTM Mode, upon pressing the Valet Switch, the Red LED Status Light will illuminate a steady, solid Red, and the piezo buzzer or horn will sound. If the Starter Disable is engaged the piezo or horn will emit 1 long chirp followed by 2 short chirps. If the Starter Disable is not engaged the piezo or horn will emit only the 2 short chirps. While the system is in the Valet Mode, the Red LED Status Light will remain solid Red (not flashing) at all times, and every time the ignition switch is turned "off", the piezo or horn will beep once as a reminder of this condition. To remove the system from Valet Mode simply press the Valet Switch at any time. The transmitter will operate normally while the system is in Valet Mode, i.e., the doors will lock and unlock, the II & III Buttons will still operate - but the Starter Disable will not operate, and any programmed automatic functions are suspended.

Overriding The System: As mentioned in the previous section, once the Starter Disable is engaged, the ignition key is required to allow the Valet Switch to override the system and allow starting the engine. To obtain a System Override, follow this procedure:

Step 1. Enter the vehicle normally.

- Step 2. Using your key, turn "on" the ignition. Be prepared to perform the following Step before 5 seconds expires.
- Step 3. <u>Within 5 seconds</u>, press and release the Valet Switch*. The system will be immediately overridden.

*Important: If a coded valet has been programmed you must enter your secret code to perform this override.

Once the activated system has been overridden, if Valet Mode is desired, holding the Valet Switch depressed for two seconds will place the system into Valet Mode.

Starter Disable

The REC-11 provides an active Starter Disable output (which engages every time the transmitter is used to lock the doors), and may be configured, if desired, to also provide an automatic (passive) Starter Disable. The optional passive Starter Disable may qualify you for an insurance discount, so please check with your insurance agent.

Active Starter Disable: Whenever the doors are locked via the transmitter, the Starter Disable will instantly engage. Unlocking the doors with the transmitter will deactivate the Starter Disable circuit, allowing the engine to be started. Please note that the Starter Disable may be configured to automatically reengage 90 seconds after the doors are unlocked by the transmitter; or, to engage automatically 90 seconds after the ignition switch is turned "off". These automatic Starter Disable options are explained in more detail in the "User Programmable Features" section of this Owner's Manual.

ignition is turned "off", then back "on"; the Valet Switch must be pressed once within 10 seconds of turning the ignition back "on"*. This is the only way to cancel or turn off the Anti-Carjacking Feature - once activated, the transmitter cannot be used to cancel or turn off the Feature.

- Custom Coded Override Mode: For a more secure starter interrupt circuit, the system can be programmed with a custom-coded number of Valet Switch presses which are required to obtain an Override of the system. This customizing can even be programmed to require two separate series of Valet Switch presses. Please ask the dealer or installer for details.

Several other Programmable Features are available for the installer's convenience, allowing flexibility in the connection of the system to the vehicle's power door locking system.

*Important: If a coded valet has been entered you must enter your secret code to cancel the Anti-Carjacking Feature. When the ignition is turned back "on" press the valet switch equal to the first digit in the secret code, the lights and piezo or horn will pause briefly. During this pause enter the second digit in the secret code; the system will stop its activity. After this point turn the ignition "off" and resume normal use of the vehicle. - Audible Confirmation: As previously mentioned, the piezo or vehicles' horn confirms the reception of transmitter commands. If desired, the audible confirmation may be deactivated.

- Automatic Starter Interrupt Engagement: If desired, the starter interrupt circuit may be programmed to automatically engage 90 seconds after the ignition is turned off; and/or 90 seconds after remotely unlocking unless the ignition switch is turned on within the 90 second period. These two Programmable Features allow independent automatic operation of the security of the starter interrupt circuit without having the doors also lock upon engagement.

- Automatic Or Remote Anti-Carjacking Protection: Two separate forms of Anti-Carjacking protection may be utilized if desired. Automatic Anti-Carjacking protection is activated every time the ignition switch is turned "on". In this form of Anti-Carjacking, the Valet Switch may be pressed within 60 seconds of turning the ignition "on", including the final 7 seconds when the piezo is beeping to remind you of impending engagement of the feature.

The second form, Remote Anti-Carjacking protection, is initiated by pressing the transmitter's III button for 3 seconds, but only if the ignition switch is already "on". This operation allows normal use of the 3rd Channel Output when the ignition switch is "off". This form has the same 60 second period in which to cancel the full engagement of the feature.

Once Anti-Carjacking has been activated by either method, the piezo or vehicles' horn will start beeping 53 seconds later, and for the next seven seconds pressing the Valet Switch once will cancel the Anti-Carjacking Feature. Even if a coded valet has been programmed only 1 press of the valet switch is required to cancel the Anti-Carjacking Feature. At 60 seconds the piezo or horn starts to sound and the parking and dome lights will start flashing. At 90 seconds the starter interrupt output will activate. Once the siren sounds and lights flash, Anti-Carjacking cannot be canceled unless the

Programming Transmitters

Programming Transmitters To Operate Your System: To use an additional or replacement transmitter, it's unique digital code must first be added to the control module's memory. The dealership where you purchased your system can provide and program transmitters for you, or you may program the transmitters yourself if you can access the system's control module. If you wish to program a transmitter, please follow these Transmitter Programming Mode procedures carefully:

- Have all the transmitters that you wish to operate your system at hand. Any time a transmitter code is programmed into your system, all existing codes are automatically erased. This, in addition to the Automatic Transmitter Verification[™] feature, prevents someone from adding an unauthorized transmitter to your system.
- 2) Access the system's control module and locate the Valet Switch.
- 3) Turn the ignition switch "on"; within 5 seconds press the Valet Switch five times. The buzzer will sound briefly.
- 4) Press the Valet Switch once again*. The system will respond by briefly sounding the buzzer followed by two beeps, indicating Transmitter Programming Mode has been entered. *Important: If a coded valet has been programmed you must enter your secret code at this point, follow steps 4a & 4b only if you have a secret coded valet.
- 4a) Press the Valet Switch equal to the first digit in your secret code. The piezo or horn will emit1 long chirp followed by 1 short chirp.
- 4b) Press the Valet Switch equal to the second digit in your secret code. The piezo or horn will emit 1 long chirp followed by 2 short chirps.

- 5) Within 10 seconds press the LOCK button on the first transmitter you wish to encode to the system. The piezo will sound then beep twice to indicate the transmitter's code is learned by the system. It is only necessary to press the LOCK button.
- 6) Repeat Step 5 within 10 seconds for each additional transmitter. As each transmitter is learned, the buzzer will sound, which is then followed by beeps indicating the number of the transmitters learned. The system will exit the Transmitter Programming Mode when the ignition switch is turned "off", after 18 seconds of not receiving a transmitter broadcast, or upon learning the fourth transmitter. The exiting of Transmitter Programming Mode is indicated by the piezo or horn sounding twice.

Dealer Programmable Options

Your REC-11 has operational features which may be programmed by the installing dealer. Some of these features enhance the system's operating characteristics, while others are an aid to the installer which allow extreme flexibility in adapting the system to the different design parameters of the vehicle. Please see your dealer more detailed information. The following features affect daily operation:

- Independent Automatic Locking And Unlocking Activated By The Ignition Switch: The system may be configured to automatically lock the doors when the ignition switch is turned "on", and also automatically unlock them when the ignition switch is turned "off". This system allows the unique capability of only automatically locking, and not unlocking them; or, if installed with driver door unlock priority, unlocking only the driver's door when the ignition switch is turned "off". The last

- Activating The Trunk Release Also Unlocks The Doors: This system allows you to make the choice of whether the convenience of using your transmitter to gain trunk or hatch entry will also unlock the doors as part of the same operation. As received from the factory this feature is activated. Even if the vehicle is configured to have the transmitter unlock the driver's first, all of the doors will unlock when the remote trunk release is utilized.

- Automatic Door Locking Operation: This system is capable of performing two forms of automatic door locking if desired, as these features are not activated at the factory.

In the first form, the system will lock the doors automatically 90 seconds after the ignition switch is turned "off". This feature ensures that the doors will become locked every time you exit the vehicle and leave it unattended.

The second form of automatic locking eliminates the accidental unlocking of the doors by the accidental or unknown pressing of the transmitter's UNLOCK button when placing it in a pocket or purse. Activating this feature causes the system to automatically relock the doors 90 seconds after the UNLOCK button is pressed <u>unless</u> the ignition switch is turned "on".

Both automatic locking and automatic relocking add the security of engaging the starter interrupt circuit when the locking is performed at expiration of the 90 second period. During the 90 second period, the LED Status Light will flash rapidly as a visual indication of the impending automatic action. Once the doors have locked and the starter interrupt has engaged, the LED Status Light will slow to a steady flash as an indication and also as a theft deterrent.

Your dealer can activate either or both of these features upon installation.